



# Q3 2021 Catastrophe Bond & ILS Market Report

Record pace of issuance continues

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# INTRO

Welcome to the Artemis third-quarter 2021 catastrophe bond and insurance-linked securities (ILS) market report, which explores new risk capital issued and the composition of transactions completed during the period.

This report dissects the 13 transactions which came in the quarter, as 26 tranches of notes combined brought almost \$2.7 billion of new risk capital to market, a record for the third-quarter.

When compared with the prior year period, issuance increased by over \$1 billion, came in more than \$1.2 billion above the ten-year average for the quarter, and this is the first time ever Q3 issuance has exceeded \$2.5 billion, as shown by the Artemis Deal Directory.

Similar to last year and in a continuation of the trend witnessed throughout this year, both catastrophe risk and mortgage ILS issuance was solid. In fact, it's already a record year for mortgage issuance with total deal volume currently just below the \$5 billion mark.

But despite this, momentum continued for deals covering property catastrophe risks in Q3 and these types of transactions dominated issuance for the first nine months of the year, and are currently on track to set a new annual record for the issuance of traditional 144A cat bonds in a year.

Artemis is the leading, freely accessible source of timely, relevant and authoritative news, analysis, insight and data on the insurance-linked securities, catastrophe bond, alternative reinsurance capital and related risk transfer markets. The Artemis Deal Directory is the leading source of information, data and analysis on issued catastrophe bond and insurance-linked securitization transactions.

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# Transaction Recap

The table below lists the 13 transactions issued in the third-quarter of 2021. The additional \$2.6 billion+ of new issuance has ensured that it's been the most active nine months in the history of the catastrophe bond and ILS market.

The quarter included a \$30 million deal from second time sponsor China Re, the first cat bond to use Hong Kong as a domicile. Zenkyoren issued its twelfth and largest ever cat bond in Q3, a \$775 million Nakama Re deal. It's the largest of the five 144A deals to feature in the period, followed by the \$185 million IBRD CAR 130 deal issued by the World Bank on behalf of the Government of Jamaica. This first time beneficiary was joined by first-time 144A sponsor Arch Capital with a \$150 million global peak perils deal. Frontline returned for the second time ever in Q3 with a \$40 million Astro Re deal.

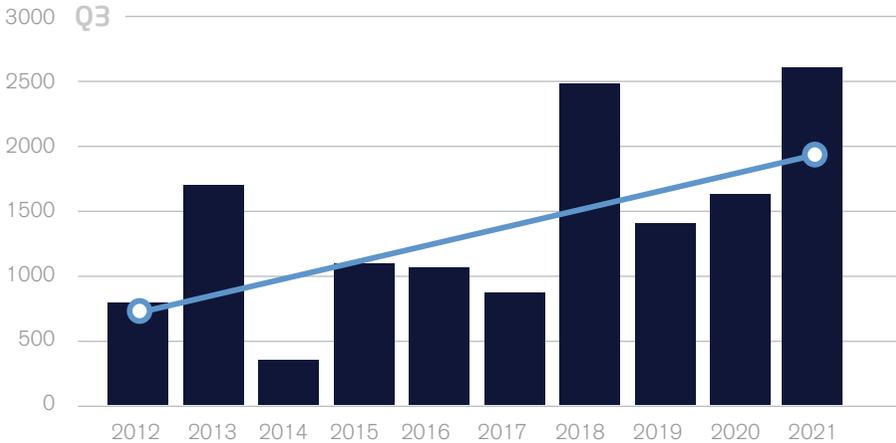
The three mortgage ILS deals issued in the third-quarter all came from repeat sponsors: Genworth, MGIC, and Arch Capital. The latter is the first sponsor to issue both a mortgage ILS deal and a traditional cat bond in the same quarter.

Swiss Re brought \$120 million of extreme mortality risk to market in Q3, while an unknown sponsor issued three private Isosceles Insurance Ltd. deals, amounting to just under \$33 million. The third-quarter also featured the second Randolph Re issuance using Aon's White Rock platform, a \$50.7 million cat bond lite that benefited Mercury Insurance.

ISSUER / TRANCHE	SPONSOR	PERILS	\$M	DATE
Greater Bay Re Ltd. (Series 2021-1)	China Re	China typhoon risks	30	Sep
Nakama Re Pte. Ltd. (Series 2021-1)	Zenkyoren	Japan earthquake	775	Sep
Bellemeade Re 2021-3 Ltd.	Arch Capital Group	Mortgage insurance risks	508.142	Sep
Triangle Re 2021-3 Ltd.	Genworth Mortgage Insurance	Mortgage insurance risks	371.521	Sep
Isosceles Insurance Ltd. (Series 2021-C1)	Unknown	Unknown property cat risks	10.92	Aug
Isosceles Insurance Ltd. (Series 2021-E1)	Unknown	Unknown property cat risks	10.84	Aug
Isosceles Insurance Ltd. (Series 2021-A1)	Unknown	Unknown property cat risks	11	Aug
Home Re 2021-2 Ltd.	MGIC Investment Corporation	Mortgage insurance risks	398.4	Aug
IBRD CAR 130	Government of Jamaica	Jamaica named storms	185	Jul
Vita Capital VI Limited (Series 2021-1)	Swiss Re	Extreme mortality	120	Jul
Astro Re Pte. Ltd. (Series 2021-1)	Frontline Insurance	U.S. named storm	40	Jul
Randolph Re (Series 2021-1)	Mercury Insurance	California wildfire	50.7	Jul
Claveau Re Ltd. (Series 2021-1)	Arch Capital Group	Global peak perils	150	Jul

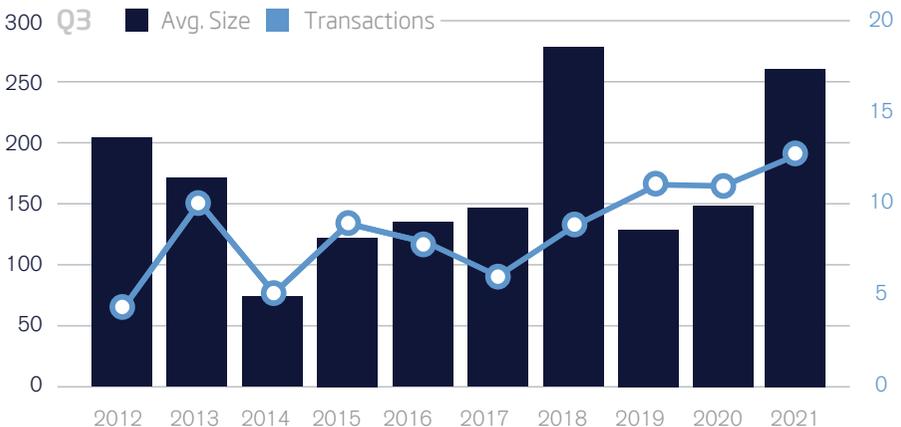
## Q3 ILS issuance by year (\$M)

For the second quarter in a row, catastrophe bond and ILS issuance set a new record for the period, ending September more than \$1 billion higher than the prior year quarter, and an impressive \$1.2 billion above the ten-year average for Q3. Thanks to robust sponsor and investor appetite, Q3 issuance surpassed the \$2 billion mark for the second time in four years, and the \$2.5 billion mark for the first time ever.



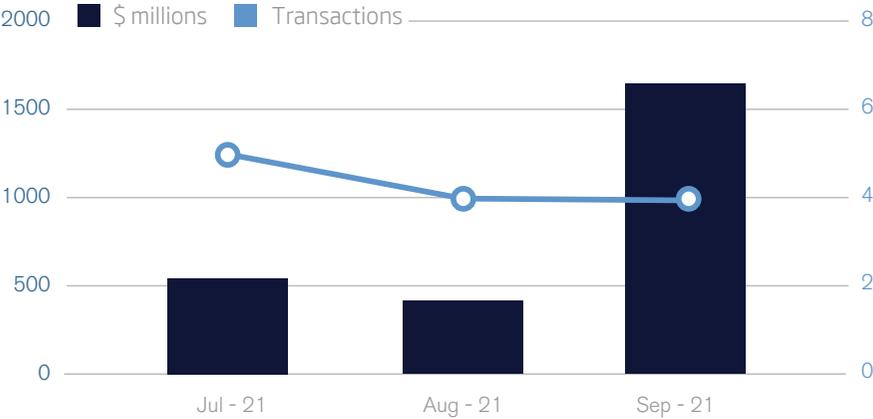
## ILS average transaction size & number of transactions by year (\$M)

The average transaction size of Q3 issuance increased to roughly \$205 million from the \$149 million reported a year earlier, and also came in above the ten-year average of \$161 million. The 13 transactions issued in Q3 takes the 9M 2021 total to 71, which means it's already the second most active year ever, in terms of the number of deals issued, and only nine behind the record for a single year.



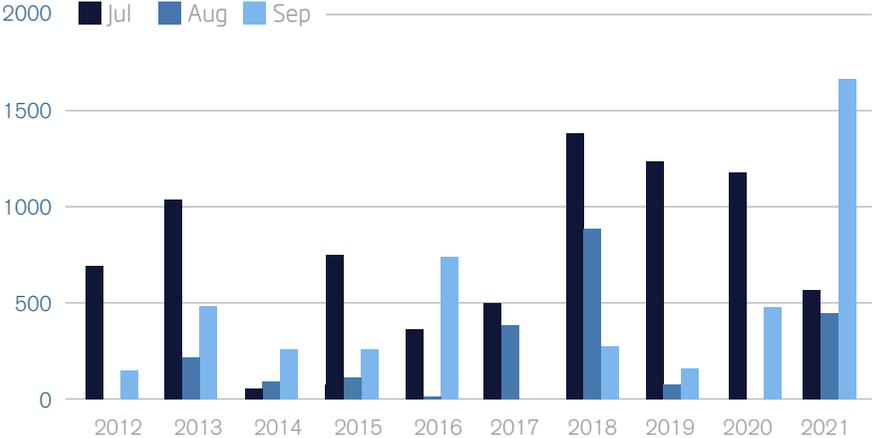
## Number of transactions and volume issued by month (\$M)

After exceeding \$1 billion in each of the past three years, issuance in the month of July came in below the ten-year average in 2021 at around \$546 million. But despite the reduced issuance, July was the busiest month of the quarter in terms of the number of transactions issued, with five.



## Q3 issuance by month & year (\$M)

In each of August and September, four deals came to market and the size of these transactions ensured that both months saw issuance levels above the ten-year average. In fact, at \$431 million, issuance in August is the highest of the past decade. In September, issuance was more than \$1.2 billion above the ten-year average for the month, at almost \$1.7 billion.





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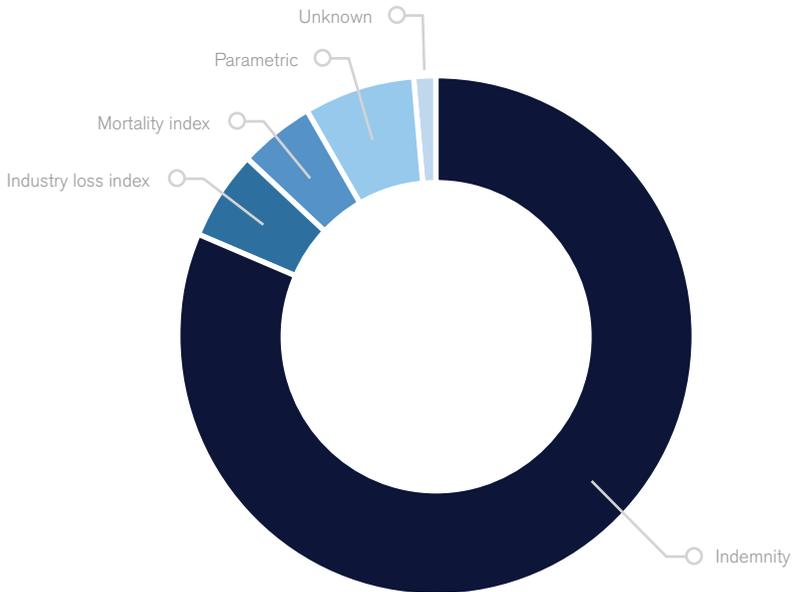
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## Q3 2021 ILS issuance by trigger type

The overwhelming majority of third-quarter issuance utilised an indemnity trigger structure, with these accounting for more than 81%, or roughly \$2.2 billion of quarterly issuance. While indemnity triggers often dominate Q3 issuance, investors were treated to more trigger structure diversification this year than in the past.

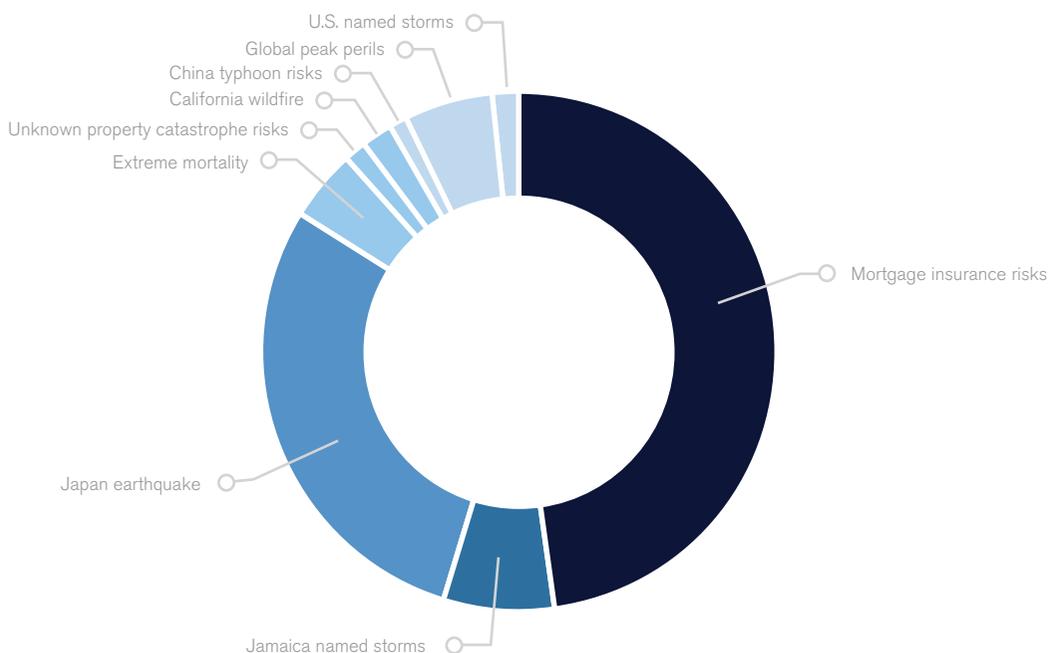


This included a \$150 million deal structured on an industry loss index trigger, accounting for almost 6% of issuance, and a \$120 million deal with a mortality index trigger, which accounts for just shy of 5% of issuance. Another deal issued in Q3, at \$185 million in size, brought some parametric trigger structure diversification to investors, accounting for 7% of issuance. For just over 1%, or roughly \$33 million of issuance we do not have trigger information for.

## Q3 2021 ILS issuance by peril

Almost half of Q3 issuance covered mortgage insurance risks. This included the third mortgage ILS deals of the year from both Arch Capital and Genworth Mortgage Insurance, and the second deal of 2021 from MGIC Investment Corp.

Alongside its third mortgage deal of the year, Arch also issued its very first 144A cat bond transaction in Q3, which provides the firm with \$150 million of protection against multiple international perils. China Re brought some Chinese typhoon risk to the cat bond market for the first time in Q3, while the first deal to benefit the Government of Jamaica also featured, issued by the World Bank on behalf of the country, providing it with protection against Jamaica named storms.



Frontline Insurance returned for its second cat bond in Q3, a \$40 million US named storm deal, while prominent sponsor Zenkyoren issued a huge, \$775 million Japan earthquake deal.

Swiss Re returned with its eighth Vita Capital transaction, providing its life reinsurance business with \$120 million of extreme mortality protection. The quarter also featured a range of private ILS deals, covering more than \$32 million of unknown property catastrophe risks and almost \$51 million of California wildfire exposure.

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## CORPORATE GOVERNANCE OF ILS VEHICLES – A VIEW FROM THE BOARDROOM

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In Q2 2021, [Sherman Taylor](#) of Ocorian discussed a view of special purpose vehicles from the perspective of a board member. Here, his colleague, [Louise Charleson](#) reviews some recent developments in the ILS sector for board members to consider.

In the [first of this series of articles](#), an overview of insurance-linked securities (ILS) was provided together with a focus on the importance of having a fit and proper and suitably sophisticated board of directors in place for Special Purpose Insurers (SPI), which are typically used as vehicles for ILS deals.

The global impact of Covid-19 through 2020 to date endures with notable cross-border supply chain disruptions, fluctuating industry and country risk factors, and excessive volatility in the capital markets. Whilst some sectors such as tech, consumer discretionary, and communication services have experienced welcome growth during this period, other sectors such as energy and financials have suffered damaging losses. The full extent of the economic consequences of

the pandemic remain uncertain. What is clear is that the ILS sector is prevailing, particularly in Bermuda.

Almost half of all new insurers registered in Bermuda were SPIs last year. To the end of August this year, 47% of new registrations were SPIs<sup>1</sup>. This reflects the sustained advancement in the ILS sector which the Bermuda Monetary Authority (BMA) continues to support. This is apparent most recently through the introduction of a new three-day approval process for cat bond SPI registration.

The three-day approval process involves completion of a revised licensing and registration checklist. The revised checklist removes the requirement for the submission of a business plan which was previously needed for such applications. However, the

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<sup>1</sup> Statistics reported by the Bermuda Monetary Authority.

application package still requires all relevant documentation pertaining to the intended SPI to be provided. This includes details of the experience of the directors and officers, especially if they have not previously served on the board of, or held office for an SPI. Incomplete or inaccurate applications could result in a delay in the application process until the omissions or errors have been addressed. Therefore, it is recommended that communication is made with the BMA in advance of submitting any application to ensure that all the requisite information has been collated so the three-day timeline can be met.

The introduction of this “fast-track” process for cat bonds serves to further bolster Bermuda’s position as the leading jurisdiction in the ILS sector. It is also timely with the increasing importance of ILS capital which augments capacity in the traditional insurance market as it grapples with major loss events, such

as: the severe July floods in Europe, where insurance and reinsurance market losses are estimated to be in the region of 7 billion (around US \$8.3bn), according to the chief of Germany’s [insurance association](#); and hurricane Ida, where losses have been estimated to be between \$25 billion and \$35 billion [according to RMS](#).

With ILS providing coverage of less conventional risks such as credit default risks, operational risks, terrorism risks and pandemic risks, in the current unstable times, the need for experienced and knowledgeable directors to sit on SPI boards is more pressing than ever.



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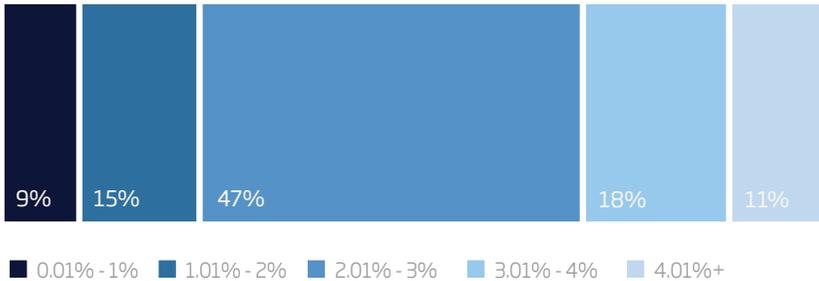
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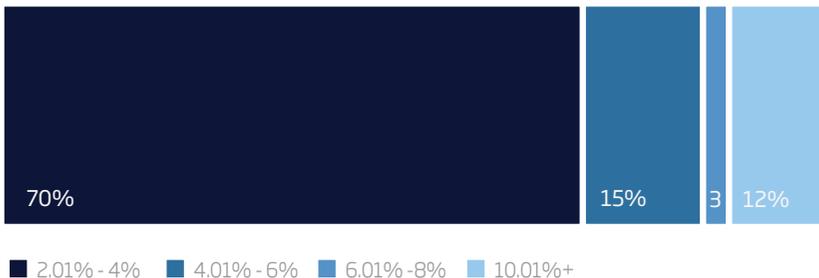
## Q3 2021 ILS issuance by expected loss

For the \$1.27 billion of risk capital issued that we have expected loss data for, over 70% had an expected loss of below 3%. Around a quarter of issuance had an expected loss of below 2%, while almost 30% had an expected loss of above 3% and roughly 11% above 4%. Swiss Re's extreme mortality bond had the lowest expected loss in the quarter, at 0.75%. The highest expected loss in Q3, at 7.18%, came from Arch Capital's inaugural 144A multi-peril transaction.



## Q3 2021 ILS issuance by coupon pricing

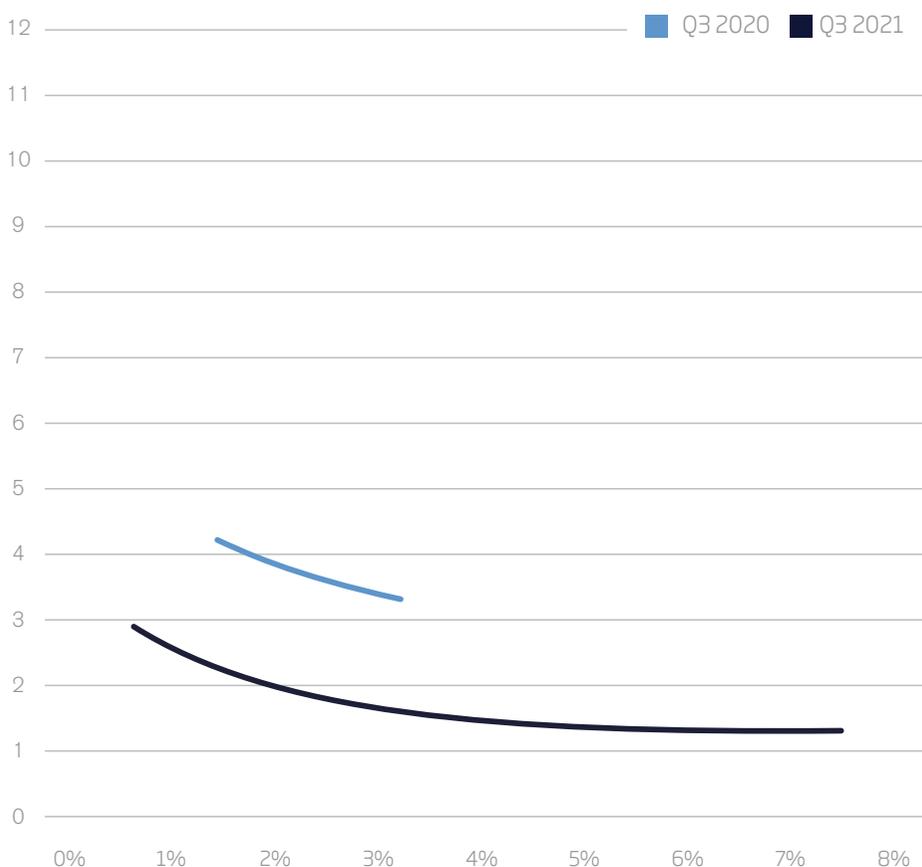
Where we have pricing data, more than 70% of third-quarter issuance paid investors a coupon of between 2% and 4%. \$185 million of this offered a coupon of between 4.01% and 6%, while just 3% of new risk capital issued paid a coupon of between 6.01% and 8%. The tranche of notes with the highest expected loss of course paid the highest coupon in Q3, at 17.25%. While the Class 1 tranche of Nakama Re notes paid the lowest coupon in the period, at 2.05%.



## Q3 2021 expected loss & multiple year-on-year

As the chart below shows, investors continue to demand the highest multiple (price coupon divided by expected loss) for the lowest risk/return deals.

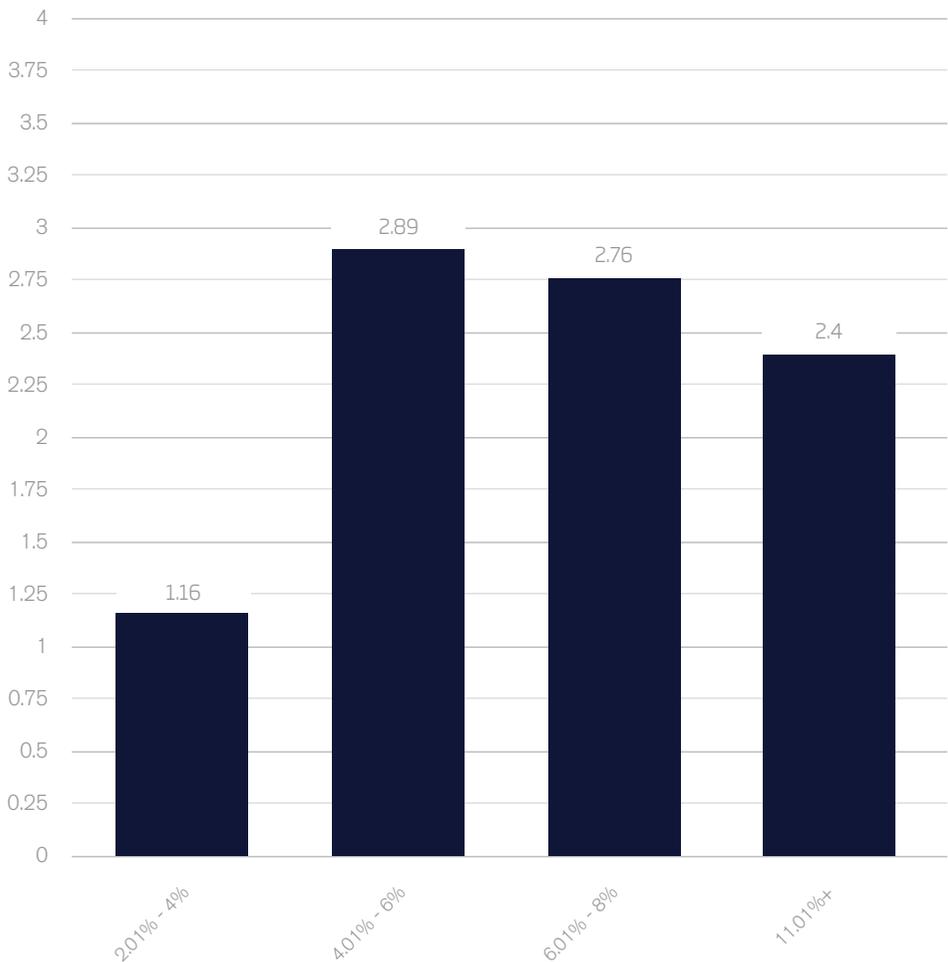
Plotting the expected loss against the multiple, with the light blue line representing Q3 2020 and the dark blue line Q3 2021, shows that despite the average multiple of Q3 issuance falling from the prior quarter, there's an ongoing trend of lower expected losses resulting in higher multiples for investors.



## Q3 2021 average multiple by coupon pricing

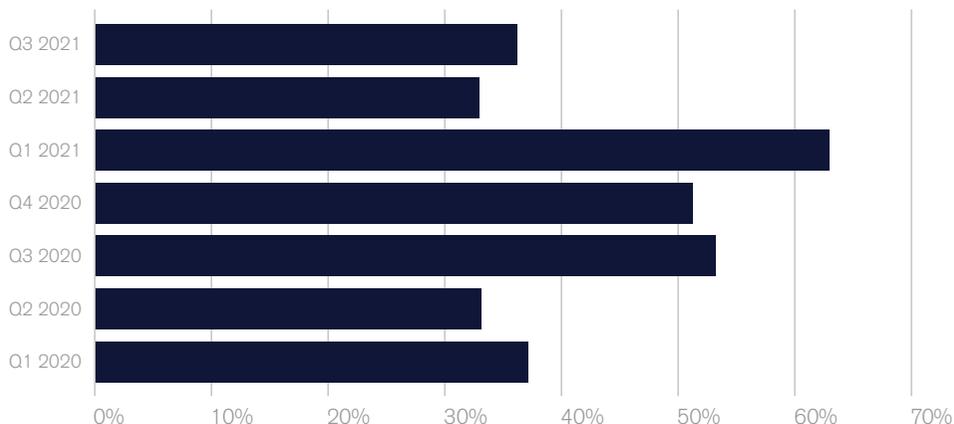
The average multiple of Q3 issuance, where we have both expected loss and pricing data, fell from more than 3.7 in 2020 to 2.05 this year. In fact, Artemis data shows that the average multiple of issuance has declined in each quarter of this year, from 2.54 in Q1 to 2.28 in Q2, to the just over 2 recorded for the third-quarter, a sign of softening in the cat bond market.

With the exception of some of the lowest priced deals, the chart below shows that generally, the lower the coupon on offer the higher multiple investors achieved.

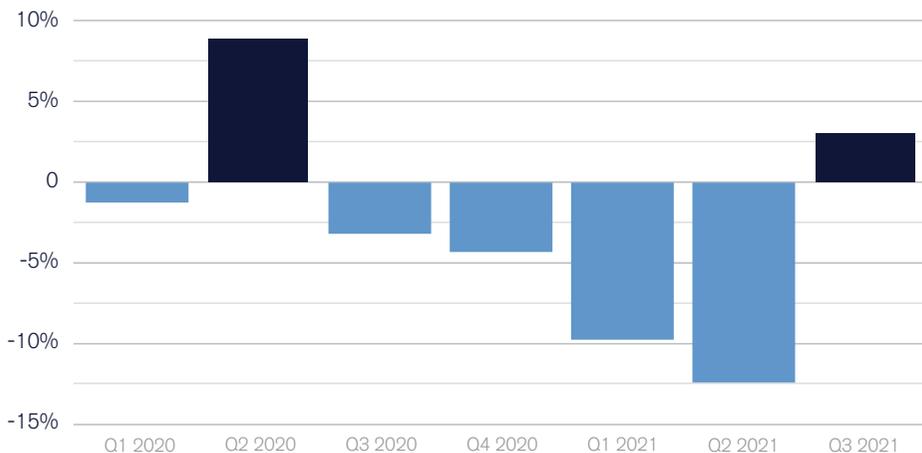


## Issuance size and price changes

Over the past seven quarters, the property catastrophe bonds issued have, on average, increased in size by at least a third. In Q3 2021, deals upsized while marketing by approximately 36%, which is slightly up on the 33% recorded in Q2 but still below the 63% seen in Q1. For the first nine months of 2020, successfully placed property cat bonds upsized by an average of 38%, while this year the deals brought to market have upsized on an average by 41%.



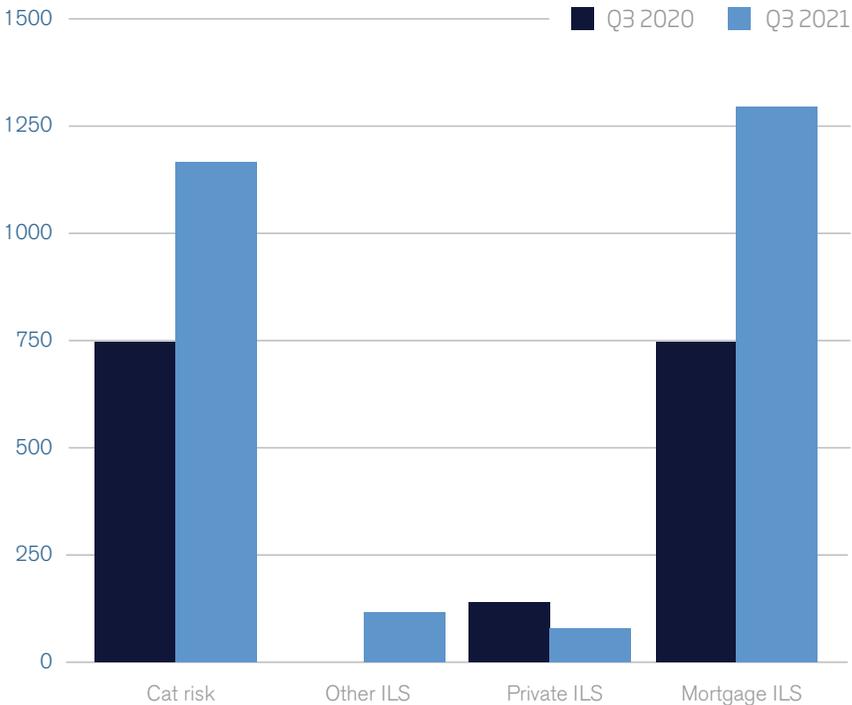
For the first time since Q2 2020, the average price change of property cat bond issuance was positive, at 2.9%. As the chart below highlights, sponsors had achieved strong pricing execution for several quarters, and notably in the first-half of this year, as strong demand pushed down pricing prior to closing. This quarter, however, all but one tranche of notes priced at or above the mid-point of initial guidance, with the most dramatic price change being a 6.7% increase, suggesting the market may have reached a floor on price.



## Q3 ILS issuance by type

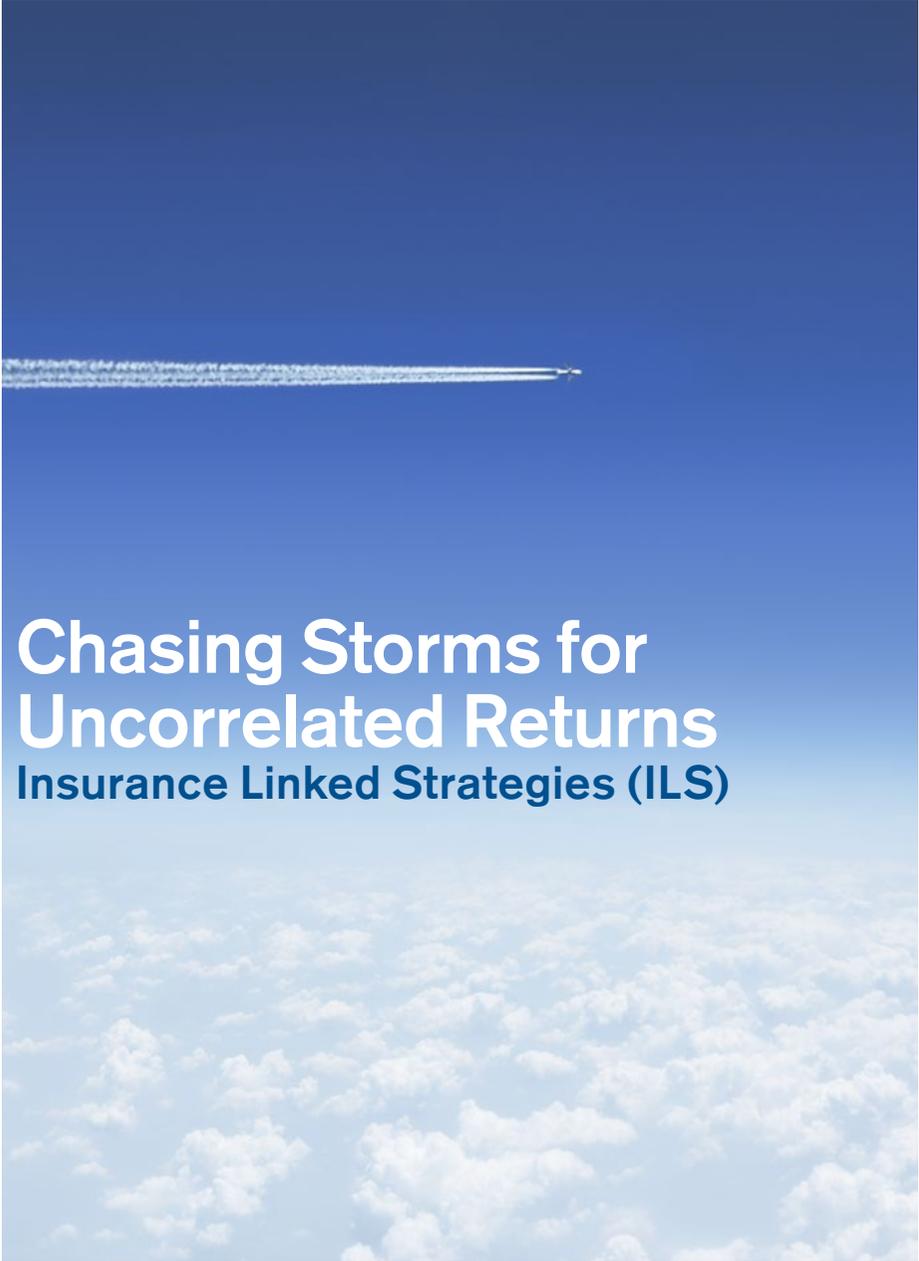
Issuance of both traditional 144A catastrophe bonds and mortgage ILS transactions were strong in the third quarter of the year, taking issuance in the period above \$2.5 billion for the first time.

The five traditional property cat deals accounted for approximately 44%, or \$1.18 billion of new risk capital issued in the quarter. As was the case a year ago, mortgage ILS issuance was particularly robust in Q3, with three deals amounting to almost \$1.3 billion, accounting for approximately 49% of quarterly issuance.



The third quarter of 2021 also featured \$120 million of extreme mortality risk, as well as more than \$83 million of privately placed, or cat bond lite transactions. The largest of the four private deals issued in the quarter, at \$50.7 million, covered California wildfire risks.

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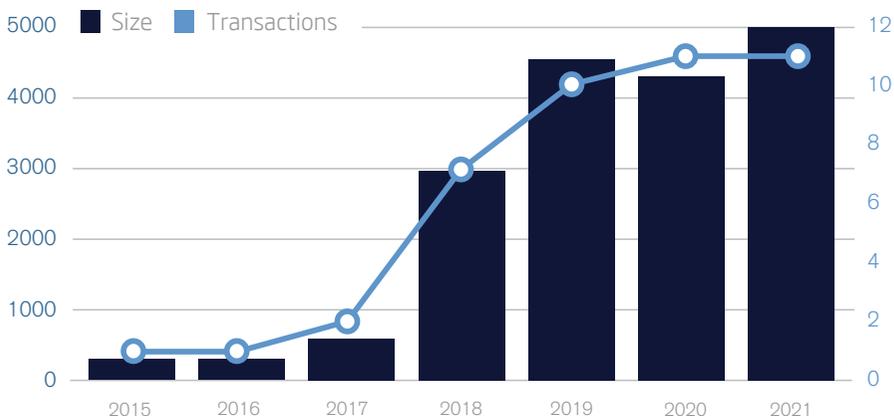
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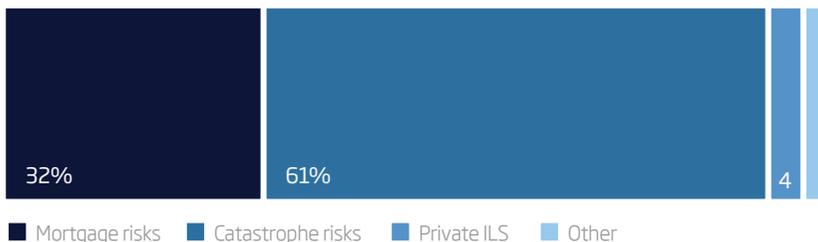
## Mortgage ILS issuance by year

The transfer of mortgage insurance risks to the capital markets continues to grow. Between 2015 and 2017, just four mortgage ILS deals came to market, with a combined value of \$1.18 billion. But in the following three years to the end of 2020, a total of 28 mortgage ILS deals were issued with a combined value of over \$11.8 billion. What's more, 2021 is already the first time mortgage ILS issuance has neared \$5 billion in a single year, taking total mortgage ILS to more than \$18 billion from 43 transactions.



## 9M 2021 ILS issuance split

For the first nine months of the year, catastrophe bond and ILS issuance was dominated by traditional 144A property cat deals. More than 61%, or \$9.7 billion of risk capital issued so far in 2021 were catastrophe risk focused, which is up on the \$7.6 billion recorded for the same period last year and only \$1.4 billion shy of setting a new record for natural catastrophe bond issuance in a single year.



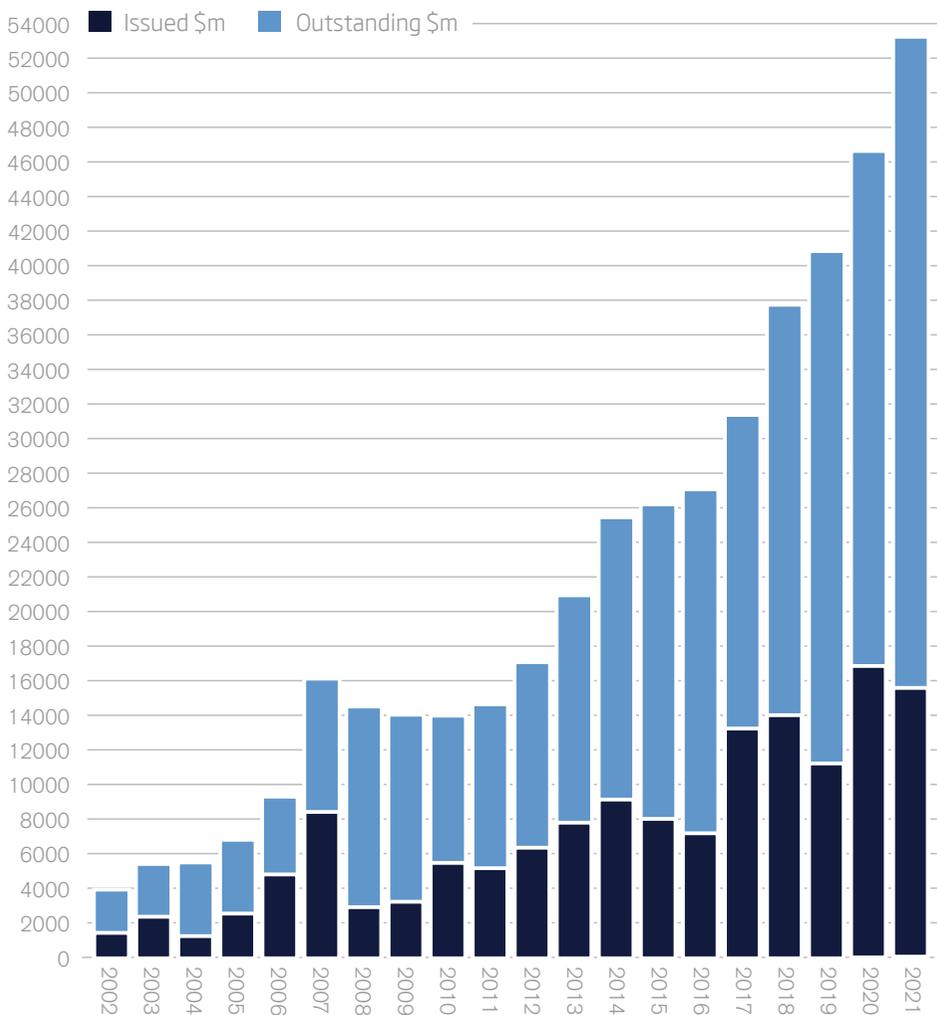
This impressive level of cat risk issuance, combined with the almost \$5 billion of mortgage deals, \$673 million of private ILS deals, and \$470 million of other ILS covering risks like extreme mortality and medical benefit claims levels, takes 9M issuance to a new high of \$15.9 billion. This means that 2021 is already the second most active year for the market ever, in terms of new risk capital issued, and behind 2020's full-year record by just \$586 million.

## Issued / Outstanding

After a record breaking 2020, catastrophe bond and ILS market issuance has maintained momentum throughout 2021. The year started with the second strongest Q1 ever and was followed by a record \$8.5 billion of issuance in Q2; a trend which persisted in Q3 as the period witnessed another record level of issuance, at roughly \$2.7 billion. As at the end of September 2021, issuance has reached a massive \$15.9 billion, which is roughly \$5.4 billion higher than the same period last year.

As shown by the Artemis Deal Directory, at the end of Q3 the outstanding market has reached a new high of \$52.8 billion, which represents year-on-year growth of roughly \$10.9 billion. In fact, the outstanding market size has increased by 26% from the end of 2020, and by almost 3% from the end of Q2 2021.

The strong level of investor and sponsor appetite has ensured that annual cat bond and related ILS issuance has once again exceeded \$10 billion, and surpassed the \$15 billion mark for consecutive years. Artemis' data shows that there's roughly \$3 billion worth of deals scheduled to mature in the final quarter of the year, and with Q4 issuance averaging \$2.5 billion over the past decade, it will be interesting to see if full-year issuance once again reaches new heights for the marketplace.



If you want to see full details of every catastrophe bond and ILS transaction included in the data in this report please visit [www.artemis.bm/deal\\_directory/](http://www.artemis.bm/deal_directory/)



All catastrophe bond and ILS issuance data sourced from the Artemis Deal Directory.

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